Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Amendment of Part 90 of the	)	PR Docket No. 93-61
Commission's Rules to Adopt	)	RM-8013
Regulations for Automatic	)	
Vehicle Monitoring Systems	)	

To: The Commission

COMMENTS OF ASSOCIATION OF AMERICAN RAILROADS

The Association of American Railroads ("AAR") hereby comments on the Notice of Proposed Rulemaking ("NRPM") in this proceeding, 8 FCC Rcd 2502 (1993), in which the Commission has proposed to modify its rules regarding use of the 902-928 MHz bands for Automatic Vehicle Monitoring (AVM) systems.

1. AAR is a voluntary, non-profit organization composed of member railroad companies operating in the United States, Canada and Mexico. These railroad companies generate 97% of the total operating revenues of all railroads in the United States. The AAR is the joint representative and agent of these railroads in connection with federal regulatory matters of common concern to the industry as a whole, including matters pertaining to regulation of communications. In addition, AAR functions as the frequency coordinator with respect to applications by the member railroads for licenses in the Private Land Mobile Radio Service

2. AAR and the U.S. railroad industry have a vital interest in this proceeding arising out of their longstanding experience with the problem of locating and tracking vehicles. Although individually owned by any one of several railroads or private rail car companies, railroad rolling stock travels throughout North America, pulled by locomotives operated by a large number of railroad organizations on tracks owned by various companies. One of the most significant problems facing the railroads today is the efficient management of rolling stock, which presupposes reliable methods of locating rail cars at all

equipment identification (AEI) technology. (See AAR Standard S-918, effective March 1, 1992, revised as of May 1, 1992, a copy of which was attached to AAR's "Statement in Opposition to Petition for Rulemaking" filed in connection with RM-8013 on July 23, 1992.) This standard contains detailed specifications relating to the use of AEI equipment and specifically requires operation in the 902-928 MHz spectrum. AAR Standard S-918 will be mandatory for all rail cars used in interchange service (i.e., virtually every railroad freight car in the North American fleet) by 1995.

5. The AAR standard is compatible with the standards adopted by the International Standards Organization (ISO) for international intermodal shipping containers, the American National Standards Institute (ANSI) for U.S. intermodal shipping containers and the American Trucking Association (ATA) for over-the-road trucks. These compatible standards will result in a seamless system for tracking the movement of containers both internationally and domestically, regardless of whether such containers move by ship, rail or truck. This will enable enormous efficiencies in the transportation marketplace by increasing the accuracy of lading tracking and by reducing costs through proper routing of freight and elimination of paperwork.

6. Many AAR members have begun implementing AEI applications to conform to the AAR standard. AAR acts as the central point for FCC licensing of these systems. Prior to initial licensing, AAR met with the Commission's Private Radio Bureau licensing staff to discuss the operation of the AEI

technology used by the railroads. Following the grant of initial licenses by the Commission and based on favor-able results of operating on the initial facilities, the railroads launched a comprehensive program of tagging the nationwide rail fleet and installing tag readers along tracks and in terminals. To date, the Commission has granted licenses to railroads for over 250 reader locations under Section 90.239 of the rules. In many locations, only one reader is deployed; in switching yards, ten or more often will be used; and some installations will involve six readers at a single location (three on each side of each track) to identify the rail car, its direction of travel and the two layers of cargo containers on the car in order to track the movement of containerized freight. By the time the railroads' AEI program is completed, there will be over 1.4 million rail vehicles equipped with AEI tags and 3,000 to 5,000 tag readers along the thousands of miles of track and in terminals throughout the United States and Canada. Tags are being added at a rate of about 15,000 cars per month at the present time.

7. In its NPRM, the Commission is proposing to adopt new nomenclature for the services provided in the 902-920 MHz band by renaming the Automatic Vehicle Monitoring ("AVM") service to the Location and Monitoring Service ("LMS"); to expand the eligi-bility for licenses in this service; and to change the allocation

of technologies. A total of 16 MHz (904-912 MHz and 918-926 MHz) would be set aside for use by so-called wideband systems such as the pulse-ranging multilateration system operated by Pactel Teletrac ("Teletrac"). The so-called narrowband systems such as the one used by the railroads pursuant to the AAR standard would be limited to 10 MHz of spectrum, i.e., 4 MHz consisting of two blocks of 2 MHz each in the existing FCC allocation (902-904 MHz and 926-928 MHz), plus one black of 6 MHz that would be made available for LMS use by the federal government (912-918 MHz).

9. AAR's concerns regarding the band plan proposed by the Commission are two fold: (1) the sufficiency under the plan of the amount of spectrum necessary to enable the railroads properly to deploy their AEI technology; and (2) whether or not there is justification for the proposed bifurcated band plan. With regard to the first concern, at the present time, under the existing rules, 16 MHz of spectrum is available to the railroads for AEI use. Under the band plan proposed by the Commission, this would be reduced to 10 MHz. AAR has been advised by its equipment vendor, Amtech Systems Corporation, that tag readers located near each other must have a minimum of 1 MHz frequency separation. Accordingly, the proposed band plan would reduce the number of AEI tag readers that can be operated in close proximity to one another. This reduction will not impact the use of wayside AEI readers along the main-line railroad routes because of the large geographic separations that are typical in those applications. However, the proposed band plan may place limitations on AEI tag reader deployment in terminal areas where it is necessary to

install a large number of tag readers in close proximity to one another.

10. AAR's second concern goes to the justification for a bifurcated band plan. The reason given by the Commission for the separate allocation for wideband and narrowband systems is that wideband systems are experiencing interference from narrowband systems. NPRM at paragraph 12-14. AAR is not persuaded that such interference is, in fact, the problem it has been claimed to be by some of the wideband system proponents; accordingly, the restrictive allocation scheme proposed by the Commission may well be unnecessary. In this regard, AAR is unaware of any instance of actual interference from a railroad AEI tag reader into a wideband system, notwithstanding that hundreds of railroad AEI tag readers are installed and operating.[1/]

11. The Commission specifically invited comment on whether wideband pulse ranging systems can effectively co-exist with narrowband systems. NPRM at paragraph 17. It is AAR's view that the code-driven nature of the wideband systems is such that those systems can easily be "notched" to accommodate the presence of

---

1/ Teletrac has been making claims of potential interference, but these claims are groundless. Indeed, Teletrac's unreasonable and unfounded concern about interference prompted Teletrac to file a petition to deny a license application for a railroad tag reader application in Green River, Wyoming, to protect Teletrac's proposed system in Salt Lake City, Utah, some 140 miles distant. See File No. 296370, Application of Union Pacific Railroad. When AAR pointed out that Teletrac had no legitimate grounds on which to object to the Union Pacific application (AAR Opposition to Teletrac Application for Freeze, filed June 4, 1993 at para. 5), Teletrac communicated its intention to withdraw its petition to deny Union Pacific's application. See, Teletrac's Reply to Opposition to Application for Freeze, filed June 16, 1993, at 22-23.

narrowband systems without compromising their reliability or accuracy in any way.[2/] This approach should be used instead of the bifurcated band plan scheme proposed in the NPRM.

within three years from the effective date of a Report and Order in this proceeding. AAR does not believe that such relicensing is necessary or desirable, particularly for most of the tag readers which the railroad industry intends to deploy for its AEI system. The majority of those tag readers will be situated in remote locations where it is highly unlikely that any wideband pulse-ranging systems will be operating.[4/] Further-more, assuming arguendo that the public interest would require relocation of some systems to other frequencies, the candidates for relocation should be those operators with fewer systems already in place, namely the wideband operators such as Teletrac.

14. The Commission is proposing to license both wideband and narrowband systems on a non-exclusive basis. NPRM at paragraph 21, 25. AAR agrees with this approach. There appears

not resort to exclusive licensing unless absolutely justified for technical reasons. Such reasons are not present here.

In conclusion, AAR respectfully submits that it does not appear necessary to subdivide the 902-928 MHz band in the manner proposed by the Commission for separate use by wideband and narrowband systems. If, however, the Commission should determine

CERTIFICATE OF SERVICE

I, Norma E. Rusnak, hereby certify that on this 29th day of June, 1993, a copy of the foregoing "Comments of Association of American Railroads" was served by first class United States mail, postage prepaid on the following parties:

Chairman James H. Quello
Federal Communications Commission
1919 M Street, NW -- Room 802
Washington, D.C. 20554

Commissioner Andrew D. Barrett
Federal Communications Commission
1919 M Street, NW -- Room 844
Washington, D.C. 20554

Commissioner Ervin S. Duggan
Federal Communications Commission
1919 M Street, NW -- Room 832
Washington, D.C. 20554

Ralph Haller, Chief
Private Radio Bureau
Federal Communications Commission
2025 M Street, NW -- Room 5002
Washington, D.C. 20554

Norma E. Rusnak